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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/764,638

01/26/2004

Russell A. Budd

YOR920000326US2

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7590 08/17/2007
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EXAMINER

BECK, ALEXANDER S

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

08/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|-------------------|--------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/764,638 | BUDD ET AL. | |
| | Examiner | Art Unit | |
| | Alexander S. Beck | 2629 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Acknowledgment is made of the amendment filed by the applicant on May 31, 2007, in response to the non-final Office action mailed on April 24, 2007, and in which claim 1 is amended. Claims 1 and 3 are currently pending in U.S. Patent Application No. 10/764,638 and an Office action on the merits follows.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2629

3. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,034,653 to Robertson et al. (hereinafter "Robertson") in view of U.S. Patent No. 6,452,572 to Fan et al. (hereinafter "Fan").

As to claim 1, Robertson discloses a compact head mounted virtual image display unit in Figure 15, the unit comprising: a microdisplay; an optical system for directing an image signal for viewing by a user, the image signal being generated in accordance with the microdisplay; an optical system mounting structure for supporting the optical system within the field of view of only a single eye of the user; a housing to substantially contain at least the optical system, wherein the image signal is viewed by the user with background light entering the optical system. (Robertson at col. 8, ll. 10-25.)

Robertson does not disclose expressly a slidable light shield, integrated within the housing and having an open position and a closed position, wherein the light shield is slidable along a length of an exterior wall of the housing and slidably positioned with respect to the optical system such that, in the open position, the image signal is viewed by the user, and in the closed position, the image signal is viewed by the user with background light at least partially blocked from entering the optical system.

Fan, analogous in art, discloses a compact head mounted image display unit in Figures 49 and 54, the unit comprising: a microdisplay, an optical system for directing an image signal for viewing by a user, a housing to substantially contain at least the optical system, and a slidable light shield, integrated within the housing and having an open position and a closed position, wherein the light shield is slidable along a length of an exterior wall of the housing and slidably positioned with respect to the optical system such that, in the open position, the image signal is

Art Unit: 2629

viewed by the user, and in the closed position, the image signal is viewed by the user with light at least partially blocked from entering the optical system. (Fan at col. 22, ll. 50-61; col. 23, ll. 40-46.)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Robertson such that the head unit comprised a slidable light shield, as taught/suggested by Fan. The suggestion/motivation for doing so would have been to protect the optical system components from damage. (Fan at col. 23, ll. 44-46.)

Moreover, it would have been obvious to a person of ordinary skill in the art to further modify the teachings of Robertson and Fan such that the slidable light shield was provided at the back-end of the optical system. The suggestion/motivation for doing so would have been to protect the back-end of the transmissive optical display system, which receives ambient backlight, from damage. As such, Robertson as modified by Fan teaches/suggests wherein when the light shield is in the open position, the image signal is viewed by the user with backlight entering the optical system, and in the closed position, the image signal is viewed by the user with background light at least partially blocked from entering the optical system.

As to claim 3, Robertson as modified by Fan teaches/suggests wherein the light shield is one of opaque, partially opaque, colored and polarized. (Fan at col. 23, ll. 40-46.)

Conclusion


4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander S. Beck whose telephone number is (571) 272-7765. The examiner can normally be reached on M-F, 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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Alexander S. Beck
August 10, 2007